Scott M. Matheson
Governor

STATE OF UTAH
DEPARTMENT OF HEALTH
DIVISION OF ENVIRONMENTAL HEALTH
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Community Health Services
Environmental Health
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Administrative Services
Health Planning and
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Medical Examiner
State Health Laboratory

533-6108
December 3, 1980

Alvin E. Rickers, Director
Room 426 801-533-6121

James Anthony
Intermountain Power Project
P.O. Box 88
Sandy, UT 84070

Re: Air Quality Approval Order for Construction and Operation of a Coal-Fired Electric Utility Generating Plant in Millard County

Dear Mr. Anthony:

On October 30, 1980 the Executive Secretary published a notice of intent to approve your proposed power generating plant. The 30-day public comment period expired November 29, 1980 and no comments were received.

This air quality approval order authorizes the construction/installation and operation of the coal-fired power generating plant near Lynndyl in Millard County as proposed in your notice of intent dated July 25, 1978, with the following conditions:

1. All pollution control procedures and facilities shall be adopted or installed as proposed and equipment shall be operated to the manufacturer's specifications and/or to good engineering practices.

2. Sulfur Emissions Control

   a. No unit shall discharge to the atmosphere sulfur as sulfur dioxide (SO_2) at a rate exceeding 0.155 lbs. SO_2 per 10 BTU heat input as averaged over 30 successive boiler operating days.

   b. No unit shall discharge to the atmosphere sulfur dioxide at a rate exceeding 10% of the potential combustion concentration as averaged over 30 successive boiler operating days.

   c. Compliance with sulfur removal requirements shall be based on data from continuous emission monitoring (CEM), the coal analysis, and a 30 day rolling average of successive operating days. The percent removed shall be computed as described in EPA performance test method 19.

CFPO

DIST	CC	AT
IPP BRD	X	
IPA BRD	X	
JHA	X	
RCS	X	
BC	X	
ATD		
JCF		
CDH		
HLH		
JMH	X	
LEJ	X	
FK		
HML		
JLM	X	
THM	X	
RN		
VLP		
GRS		
RDS	X	
BMT	X	
BJV	X	
RJC	X	
WWP	X	
FILE	X	
PER JHA		

LJW X
RLN X
JJC X
NFB X
ASB X
FMR X
JPS X

3. Nitrogen Oxides Emissions Control

No boiler unit shall discharge to the atmosphere nitrogen oxides expressed as nitrogen dioxide (NO_2) at a rate exceeding 0.60 lb NO_2 per 10^6 BTU heat input based on a 30 day rolling average of successive boiler operating days. Compliance with this emission limitation shall be based on CEM data, fuel heat input and EPA performance test method 19. Compliance shall be accomplished by boiler design and appropriate operating practices.

4. Particulate Emissions Control

a. No boiler unit shall discharge to the atmosphere via the tall stacks particulate matter at a rate exceeding 0.02 lb/10^6 BTU heat input as determined by EPA test methods 1-5 and 19 performed within 180 days after commercial operation has started.

b. Visibile emissions from any source shall not exceed 20% opacity as determined by Section 4.1.9, Utah Air Conservation Regulations (UACR), except for one 6-minute period per hour of not more than 27% opacity for each of the tall stacks.

c. The 750 ton coal surge bin and coal crushing operations shall be vented to baghouses. The lime transfer and storage silo system shall be vented to a baghouse.

d. Fugitive dusts and emissions shall be controlled as proposed:

(1) All conveyors, except the traveling stacker, shall be covered and have surfactant sprays at all discharge points except the conveyors feeding the coal silos.

(2) The rotary car dumper shall use surfactant spray and be partially enclosed.

(3) The active twin storage piles shall be stabilized, have protective earthen berms and be sprayed with surfactant and/or crusting agents.

(4) The emergency active storage pile shall have a telescopic chute on the inloading conveyor, crusting agent sprays and be reclaimed through a bar grating and reclaim conveyor.

(5) The reserve coal storage piles shall be compacted, sprayed with a crusting agent and have a minimum of activity or turnover rate.

(6) Unpaved roads shall be treated with stabilizing agents and water sprays as proposed or as determined necessary by the Executive Secretary to minimize fugitive dusts.

(7) A record/log shall be kept containing the types of suppression agents used, amounts, dates, and areas of appliation. The record/log shall be made availalbe to the Executive Secretary upon request.

(8) Water and/or surfactant spraying during the construction phases shall be performed as necessary to minimize fugitive emissions and dusts or as directed by the Executive Secretary; however, recording of such spraying need not be performed.

5. Report Requirements for Air Quality Information

a. Continuous emission monitoring for opacity, sulfur dioxide, and nitrogen dioxide shall be performed in accordance with Section 4.6, UACR and 40 CFR Part 60.

b. Section 4.7, UACR, shall be complied with for unavoidable breakdowns.

c. A copy of all required reports submitted to EPA shall also be submitted to the Executive Secretary.

6. The Executive Secretary shall be notified when construction begins and when operation is normal (commercial date) as an initial compliance inspection is required.

Sincerely,

Brent C. Bradford
Executive Secretary
Utah Air Conservation Committee

MRK:js

cc: Central District Health Dept.
EPA/Region VIII (N. Huey)
Wes Pepper/IPP

V. Recommendations

Approval is recommended with the following conditions:

This air quality approval order authorizes the construction and operation of two coal fired steam electric generating units near Lynndyl in Millard County, with the following conditions:

1. The boilers will be constructed and operated according to the specifications in the contract document number 2010N, as submitted to the Executive Secretary on April 14, 1983.

2. The sulfur dioxide scrubber will be constructed and operated according to the specifications in the contract document number 9255.62.0202, as submitted on April 14, 1983.

3. The fabric filters will be constructed and operated according to the specifications in the contract document number 9255.62.0203, as submitted on April 14, 1983.

4. No boiler unit shall exceed 8.352×10^9 BTU/hr heat input rate, as determined by ASTM Method D 3176 and the coal feed rate measured by the plant instrumentation. Records of heat input will be kept for two years and made available to the Executive Secretary on request.

5. No boiler unit shall discharge to the atmosphere:

   a. Particulate matter at a rate exceeding
      (1) 0.020 lbs/10^6 BTU heat input

   b. Sulfur dioxide at a rate exceeding
      (1) 0.150 lbs/10^6 BTU heat input
      (2) 10.0 percent of the potential combustion concentration

   c. Nitrogen oxides at a rate exceeding
      (1) lbs/10^6 BTU heat input

   d. Visible emissions in excess of 20% opacity

6. The emission limitations in paragraph 5 above will be determined by the following procedures:

   a. Particulate matter
      40 CFR 60.48a (a (1 - 6))

   b. Sulfur dioxide
      40 CFR 60.48a (b (1 + 2))
      (30 day average)

   c. Nitrogen oxides
      (1) 40 CFR 60.48a (c)
      (30 day average)

d. Opacity - 40 CFR 60, Appendix A, Method 9, and by six minute averages of the output of the continuous emission monitor required by 40 CFR 60.47(a) and Utah Air Conservation Regulations (UACR), Section 4.6.

e. Performance testing shall be completed by the dates required by 40 CFR 60.8a. For the purpose of 40 CFR 60.8a, maximum production rate shall be a boiler heat input of 7.517×10^9 BTU/hr and initial startup shall be the first day electricity is produced by the generator.

7. Emissions of particulate matter from the following dust collectors shall not exceed a concentration of 0.024 gr/dscf and the following rates:

A.	1	Railcar unloading (4 units)	15.3	lbs/hr each unit
	2	Transfer Building One	7.1	lbs/hr
	3	Unit One 13A	6.9	lbs/hr
	4	Transfer Building Two	5.5	lbs/hr
	5	Transfer Building Four	3.7	lbs/hr
	6	Crusher Building One	3.8	lbs/hr
	7	Unit One 13B	3.5	lbs/hr
	8	Unit Two 14A	4.1	lbs/hr
	9	Unit Two 14B	3.5	lbs/hr
	10	Limestone Preparation Building	3.5	lbs/hr

B. Stack testing of the dust collectors listed in 7.A.1,2 and 3 above shall be completed within 60 days of startup of each unit. Ducting of gas flow from those dust collectors shall be designed to meet the requirements of 40 CFR 60, Appendix A, Method 1.

C. Stack testing of the dust collectors listed in 7.A.4 through 10 shall be as directed by the Executive Secretary.

D. The test method for the above installations 7.A.1 through 10 shall be 40 CFR 60, Appendix A, Method 5 and 2.

8. Visible emission from the following dust collectors shall not exceed 20% opacity, as determined by 40 CFR 60, Appendix A, Method 9:

A. Coal Truck Unloading
B. Reserve Reclaim
C. Limestone Truck Unloading Hopper
D. Reclaim Hopper
E. Crusher Building
F. Each of the Dust Collectors Listed in 7.A.1 through 10

9. Fugitive emissions from the following sources shall be minimized as listed herein and visible emissions from these sources shall not exceed 20% opacity, as determined by 40 CFR 60 Appendix A, Method 9:

A. Coal and limestone conveyor belts - enclosed on three sides.

B. Coal and limestone dumpers - underground receiving.

C. Coal stack out - telescopic spout and wet suppression.

D. Coal and limestone reclaim - underground plow.

E. Coal and limestone storage active pile - residual moisture.

F. Coal and limestone reserve pile - compacting and crusting agent.

G. Limestone stack out - telescopic spout.

H. Flyash silo unloading - mix with scrubber sludge.

I. Coal and limestone haul road - paved.

J. Solid waste area access road - $CaCL_2$ or other dust suppressant treatment.

K. Solid waste haul road - watering.

L. Solid waste/soil stockpile - watering.

M. Solid waste burial pile - compaction and reseeding.

10. Section 4.7, Utah Air Conservation Regulations shall apply only to emissions of particulate, opacity, and nitrogen oxides. Excessive emissions of sulfur dioxide shall be subject to the provisions of 40 CFR 60.46 a (c + d).

11. Reports required by 40 CFR 60.49a shall be submitted to the Executive Secretary by the dates specified in (i) of that part.

12. A quality control program for the continuous monitoring system required by 40 CFR 60.47a and Section 4.6, UACR, must be developed and implemented. As a minimum, the quality control program must have written procedures for each of the following activities:

(1) Installation of CEM's
(2) Calibration of CEM's
(3) Zero and calibration checks and adjustments for CEM's

(4) Preventive maintenance for CEM's (including parts inventory)
(5) Data recording and reporting
(6) Program of corrective action for inoperable CEM's
(7) Annual evaluation of CEM system

The quality control program must be described in detail, suitably documented, and approved by the Executive Secretary prior to the date of performance testing.

13. Post construction monitoring of ambient air for at least one year is required. A quality assurance plan for post construction monitoring must be submitted for approval by the Executive Secretary no later than six months before initial startup of either boiler.

14. All installations and facilities authorized by this approval order shall be maintained in proper condition.

DK:wml
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